Supplier Request (SR) Process Streamline and Optimization

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Abstract

The Supplier Request (SR) process is used by the supply base to electronically submit Process or Engineering change requests against the contractual relationship or approved technical baseline. The process is not optimized when it comes to the processing of Process Change Requests (PCR) type SR's. The team identified three main process wastes: repetition of tasks, program independent reviews and inconsistent information provided by the supplier. The new streamlined and optimized process was able to meet the objectives and exceed expectations. The first pass yield was improved from 30 percent to 100 percent and the average cycle time was improved from 114 days to 24 days. Year to date, the project has contributed to the organization two million dollars in costs avoided. The next project phase would be to deploy the new process for all programs across the mission areas and suppliers across the supply base.

Introduction

This project takes place at a prime defense contractor for the United States of America. The company is a multinational corporation that has multiple sites located across the United States and overseas. At this time, the scope of the project will be limited to the site located in Tucson, AZ which is the largest site with over twelve thousand full time employees.

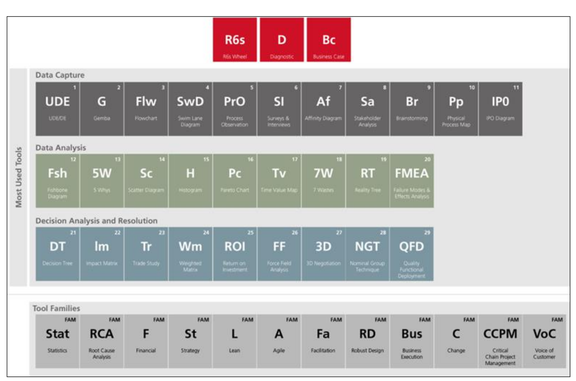
A process change at a supplier can affect multiple families of products for which the baselines are controlled by each individual customer program. These common PCRs would need to be reviewed and approved by all the different customers depending on the products being affected by the change. Since different customer programs control the product baseline, a single process change affecting seven different programs would require seven individual PCR type SR's which leads into seven different independent reviews and approval before the supplier can implement the changes on their end. This increases the approval cycle time and processing costs by a multiple that is equal to the number of programs being affected by the process change.

Project Objectives

- Improve average PCR Type SR approval Cycle Time from 114 days to 30 days by end of Q3 2020.
- Improve PCR Type SR approval First Pass Yield from 20% to 75% by end of Q3 2020.

Analysis

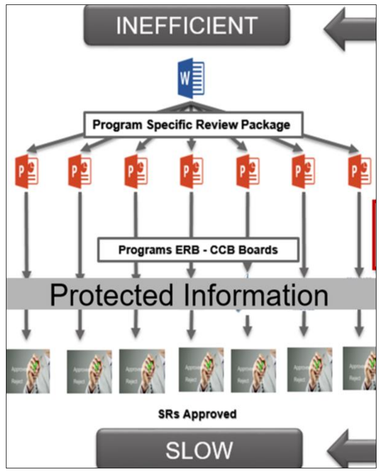
The team used the tools available in the R6s methodology to analyze the current state of the process, gather metrics data and develop improvement ideas to come up with a streamlined and optimized process that can be implemented in a phased approach across the organization.

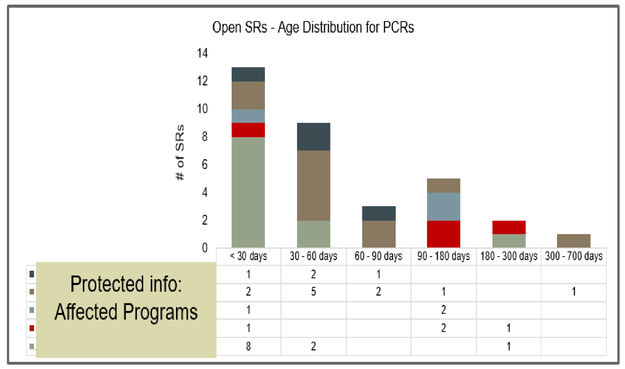


Current State

Due to the nature of the process, multiple SR's are submitted for each program to independently process through their respective engineering review boards. the data collected by the team in order to support the business case for the project. The data shows the spread of aged SR's which seems to be significant and may represent unresolved risks for the programs affected.

The team used the Undesirable Effects (UDE) and Seven Waste (7W) tools from R6s methodology to identify waste in the process.The main wastes identified were repetition of tasks, independent reviews and inconsistent information being provided by the supplier.

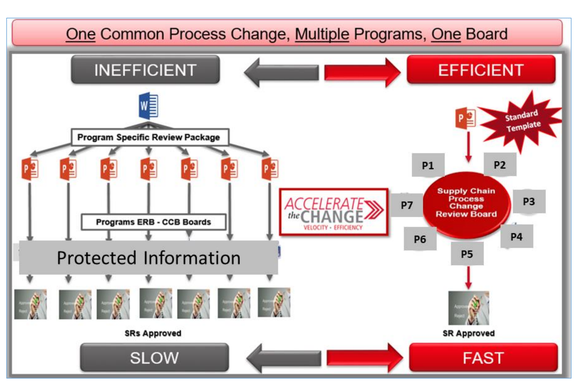




Future State

The team used the Brain Storming (Br), Stake Holder Analysis (Sa) and Weighted Matrix (Wm) tools from R6s as the basis for decision making and selection of the best solutions to address the main UDE's and process wastes identified during the current state process mapping and data analysis stages.

In order to put the future state process to the test, the team generated formal documentation or command media that provides instructions, guidelines and run rules on how the pilot would operate.



Key Points:

- Common Process Changes *Only*
- Standard Template used for all PCRs
- No TDP updates
- Contract Compliance
- CMOP Alignment
- ALL Programs, ONE Peer Review

No Impact to Engineering Rigor and Risk Assessment

Results

Year to date, twenty SR's have been processed using the new process. All of them have been approved for a first pass yield of 100 percent which is better than the established goal. The average cycle time of the new process is 24 days, which is better than the established goal. From a cost avoidance perspective, by using the new process, the organization has avoided to host 100 individual program review board meetings which are estimated to cost approximately $20,000 each for a year to date savings of approximately $2,000,000.

Conclusion

The team main objectives were achieved and the new process exceeded the team expectations. The first pass yield was improved from 30% to 100%, which is mainly driven by the use of the standardized SR template that facilitates the supplier's ability to provide all information needed by the team to review and approve the changes. The average cycle time was improved from 114 days to 24 days. This improvement was mainly driven by the elimination of repetitive activities in the likes of peer reviews and engineering review board meetings.

In the near future, the next project phase would be to deploy the new process for all programs and suppliers to benefit from a streamlined and optimized process. In order to do this, the organization would need to socialize the project and leverage the project framework and lessons learned to facilitate onboarding additional suppliers with ease.

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